Brookfield Renewable Power

Brookfield Power US Asset Management LLC
200 Donald Lynch Blvd
Suite 300
Marlborough, MA
01752-4707

Tel 508 251-7650
Fax 508 485-5207
www.brookfieldpower.com

October 2, 2008

Philip Guidice, Commissioner
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

RE: Comments on Section 105 of the Green Communities Act

Dear Commissioner Guidice,

Please find attached the Brookfield Renewable Power comments in relation to Section 105 of the Green Communities Act. These comments are submitted for the consideration of the Department in its "feasibility study" regarding the provisions of the Act related to the imports of renewable generation.

Kind regards,

Daniel Whyte
Vice President, Government and Stakeholder Relations

Pursuant to subsection (g) of the Green Communities Act ("Act") enacted by the Commonwealth of Massachusetts, Brookfield Renewable Power Inc. ("Brookfield") hereby respectfully submits comments for consideration by the Massachusetts Department of Energy Resources ("DOER"). As a general stance, Brookfield strongly opposes (i) the Act requirement for a renewable energy source to be committed as a capacity resource in order to receive Renewable Energy Credit ("REC") recognition, and (ii) the provision reducing eligible RECs by any exports of energy made by related companies of the renewable energy resource. Adopting these provisions would be detrimental for the Massachusetts Renewable Portfolio Standards ("RPS") as they would affect Massachusetts consumers by (i) lowering REC supply, (ii) increasing voluntary payments and, (iii) pushing REC value to the ceiling price[1]. Although we appreciate the desire to keep Massachusetts RECs tied to renewable energy sources, and therefore the benefits of renewable energy (lower emissions, economic development), within the state, these provisions would hamper otherwise economically viable companies' health by restricting their ability to work within the marketplace as a whole.

II. Communication and Correspondence

Communications and correspondence related to this matter should be directed to:

Robert Ricketts
Director, Regulatory Affairs, US Operations
Brookfield Renewable Power
200 Donald Lynch Boulevard
Marlborough, MA 01752-4705
Telephone: 518-724-3720
robert.ricketts@brookfieldpower.com

[1] In 2006, MA RPS required LSEs to provide 2.5% of their electricity from a renewable resource. That year 74% of the goal was achieved. For the remaining 26%, alternative compliance payments of $17.8 million have been made by LSEs. *Ceteris Paribus* a 25% requirements could equate a $178 million alternative compliance payments, all assumed by MA customers on and above their electric bill.

And:

Nicolas Bossé
Manager, Regulatory Affairs – ISO New England
Brookfield Energy Marketing Inc.
1501 McGill College Suite 1602
Montréal, Québec
CANADA, H3A 3M8
Telephone: 514-845-4555 ext. 232
nicolas.bosse@brookfieldpower.com

III. Interest of Brookfield Renewable Power

Brookfield Renewable Power is a prominent renewable energy developer and provider in the Northeast energy markets[2]. Brookfield is a subsidiary of Brookfield Asset Management Inc., a global asset management company, focused on property, power and infrastructure assets, has approximately US$95 billion of assets under management and is listed on the New York and Toronto Stock Exchanges under the symbols BAM and BAM.A, respectively, and on the Euronext Amsterdam under the symbol BAMA. Brookfield recently opened its US headquarters in Marlborough, Massachusetts where we hope to employ 100 people by the end of 2008. We own many hydroelectric facilities throughout the New England states and New York, including a 600 MW pumped storage facility (Bear Swamp in the town of Florida) and a 10 MW run of the river facility (Fifebrook Station, also in Florida) in Massachusetts. Brookfield has a marketing arm, Brookfield Energy Marketing, Inc. ("BEMI"), which has been granted market-based rate authority by FERC to transact ancillary services, capacity and energy in ISO New England, New York ISO, PJM and Midwest ISO markets.

---

[2].

IV. Nature of the Proceeding

In April 2002, the Commonwealth of Massachusetts adopted its Regional Portfolio Standards ("RPS"). The RPS requires that a certain amount of the electricity consumed within MA boundaries be produced from a renewable source. As such, Massachusetts developed a set of qualifying rules that have been interpreted and modified by the DOER.

On July 2, 2008, Governor Deval Patrick signed into law the Green Communities Act ("Act") modifying, among other things, how imported renewable generating resources could qualify to have their RECs certified for the Machusetts RPS. In particular, the Act directed the Department of Energy Resources ("DOER") to study the appropriateness of (i) committing the renewable generating source to the Independent System Operator of New England ("ISO-NE") capacity market, and (ii) netting all energy transactions (imports/exports) from related companies of renewable energy resources for REC recognition[3].

Brookfield has a substantial interest in the outcome of this proceeding and offers following comments.

V. Comments

Subsection (g) of the Act directs the DOER to "assess the feasibility of implementing subsection (c) and (e) and report its findings along with proposed regulations for implementing these subsections". First, Brookfield's opinion is that the study scope should not be limited only to these subsections of the Act, but should adopt a broader scope of review in order to enhance the probability

[3] Green Communities Act at Section 105 subsection (g)

of Massachusetts' achievement of its aggressive goals set forth in the RPS. The study should at least opine on DOER's interpretation of the language included in subsection (b) of the Act. Secondly, the link between capacity and RECs should not be implemented as it will harm the ability to meet the RPS goals, as well as unduly increase REC prices for customers. Finally, netting all the imports and exports made by related persons for RECs recognition of a specific renewable energy resource is contrary to the achievement of the RPS and should be removed.

A. The Scope of the Study Should Not Be Limited to Subsection (c) And (e).

The Act in subsection (g) of Section 105, directs the DOER to "assess the feasibility of implementing subsection (c) and (e) and report its finding … on or before November 1, 2008". By that, the Act limits the scope of the study the DOER should accomplish. To adequately analyze the scope of the limitation imposed by the Act on external renewable energy resources, the whole Section 105 of the Act should be looked at. By focusing solely on these subsections, fundamental and intertwined elements to these subsections are left behind but may prove to be beneficial in achieving the RPS goals. The DOER should then adopt a broader scope of review of the Act by including subsection (b) in its review as it directly impacts the implementation of the Act.

Indeed, Section 105 subsection (b) of the Act spells out the modification in subsection (b) of Section 11F of chapter 25A of the General Laws regarding the location aspect of a renewable generating resource seeking to qualify as an eligible energy generating source in the RPS. According to subsection (b), to qualify in the RPS, the resource should be "physically located in *or relocated* to a control area adjacent to the ISO-NE control area…" (Emphasis added). In its study, the DOER should clarify what is the intent behind the physically *relocated* language and provide an interpretation of the applicability of this language. This clarification is required especially in light of DOER's approval of

a specific project where the renewable generating resource seems to be located in an ISO-NE non-adjacent control area.

In fact, the DOER granted on September 3rd, 2003 to MM Cuyahoga Energy LLC, a land fill gas project located in Solon, Ohio, a Massachusetts RPS certification. According to our reading of Chapter 25A Section 11F subsection (b) of the General Laws, only renewable generating resources located in an ISO-NE adjacent control area could be certified into the Massachusetts RPS.

As a developer and owner of internal ISO-NE, as well as adjacent and non-adjacent ISO-NE control area renewable generating resources, Brookfield is very interested to understand the DOER's interpretation of the meaning and intent behind the physically *relocated* language of subsection (b). To be clear, Brookfield supports a broader interpretation by the DOER of this subsection. Furthermore, Brookfield supports the eligibility of renewable energy resources located in ISO-NE non-adjacent control areas to potentially be certified as participants to the Massachusetts RPS.

B. Linking the Capacity Commitment of the Resource to its REC Recognition Will Be Detrimental to the MA RPS requirements

Subsection (c) of the Act outlines the delivery requirements that an imported renewable energy resource should comply with in order to receive certified renewable attributes to the RPS. Particularly, Subsection (c) provides that such resource needs to commit "the renewable generating source as a committed capacity resource for the applicable annual period." This requirement raises a number of concerns regarding its interpretation and implementation especially in light of the upcoming Forward Capacity Market ("FCM") rules. If implemented, the link between the two markets will dramatically decrease the supply level of RECs available to be traded into the Massachusetts RPS. This will be

harmful for all Massachusetts' consumers. The DOER should conclude that this requirement is not feasible as it would impede deliverability of renewable energy.

Furthermore, the current NEPOOL Generation Information System ("GIS") rules – tracking energy transactions using the NERC-tagging system – has proven to be a very efficient method in assuring Massachusetts RPS consumers that the energy related to the REC they are paying for is actually entering into and is consumed within the boundaries of the region. Hence, requiring external renewable resources to also be committed as a capacity resource in the ISO-NE FCM is unduly complex, unnecessary, burdensome, and will not achieve its intended objectives.

In order to understand the magnitude of the effect of such linkage, one should understand (i) the nature of the FCM[4], (ii) the Installed Capacity Requirements ("ICR")[5], and (iii) the different calendars of FCM and the Massachusetts RPS.

The FCM is a three-year in advance capacity procurement market with complex qualifying, participating and performance rules. Per FCM Market Rules, almost all external resources are to be treated as new capacity. Accordingly, these resources are obligated to file with ISO-NE a Show of Interest ("SOI") form documenting the elements required by the ISO-NE to qualify as a resource for a given Forward Capacity Auction ("FCA"). A new resource will have to go through the SOI process for every FCA even if the resource has already cleared in a previous auction.

Typically, the maximum MW amount a generating resource could qualify for the main auction is based on its rolling 5-year median summer Seasonal Claim Capability ("SCC"). Thus, a generating resource is merely able to enter into the auction its summer SCC. If the proposed legislation were to

[4] See Section III.8 of the ISO New England OATT for a complete view of the FCM Market Rules.
[5] *Op. Cit* Section III.12

be implemented, it would then limit the quantity of renewable energy available to meet the Massachusetts RPS requirements[6].

The next step in the FCM qualification process is qualification determination based on the SOI submitted by ISO-NE[7]. From subsection (b) language, it is unclear whether an RPS participant only needs to qualify the MW for a given FCA in order to have its RECs recognized or if it needs to actually clear the auction and have a capacity supply obligation in a given year. If the latter applies, the DOER should be aware that obtaining a capacity supply obligation from the initial auction may not necessarily mean that the resource will actually have the obligation for any given month in the corresponding FCM power year. Indeed, besides the main auction, capacity suppliers are able to participate in annual, seasonal and monthly reconfiguration auctions as well as the bilateral markets. Furthermore, there are some provisions in the FCM Market Rules allowing a generator to supplement the availability of another generator on a daily basis[8]. For the reasons outlined above, linking capacity commitment of the renewable resource to its REC recognition opens a "Pandora's box" that will negatively impact Massachusetts customers. The DOER should clearly reject this proposal and conclude that this requirement is not needed and will prove to be prejudicial to the Massachusetts RPS.

Furthermore, for a given FCA, ISO-NE has to procure the full amount of the calculated Installed Capacity Requirement[9]. The ICR is the level of capacity that the customers of the ISO-NE control area need to purchase in order to maintain a reliable system. It also incorporates the amount of

---

[6] The summer SCC of a unit is lower then its name plate MW value, further decreasing the amount of MW available to sell into the MA RPS.
[7] FCM rules allow a market participant to lower its SOI MW level it intends to have ISO-NE qualified.
[8] In order to track all these potential capacity supply obligation trades, the NEPOOL GIS will necessarily need to be substantially modified. The substantial cost associated to these modifications would most probably have to all be paid by MA consumers as these changes are only required and applicable for their sole benefits. These costs would then again raise the cost MA customers would have to bear in order for this subsection to be correctly implemented.
[9] See ISO OATT Section III.12

tie benefits that ISO-NE could receive in times of emergency[10]. This amount is directly deducted from the ICR requirement.

Tie benefits are determined for the region as a whole and are then allocated to the different ties. Once the individual tie benefits are determined, they are netted from the nominal rating of each interconnection. Thus, the amount of capacity that could be sold over a given interconnection is limited by the amount of tie benefits attributed to it.

The table below shows the maximum capacity that could have been accepted for the 2010/11 FCA[11].

	Nominal Value	Tie Benefits	Available for FCA
NY ISO interface	1,500 MW	200 MW	1,300 MW
Phase-II Interface[12]	1,400 MW	920 MW	480 MW
New Brunswick interface	1,000 MW	700 MW	300 MW
Total	**3,900 MW**	**1,860 MW**[13]	**2,080 MW**

As evidenced by the table, linking capacity and REC recognition would diminish by 48% the potential RECs that could be sold into the Massachusetts RPS. As an example, in the first FCA, only 641 MW from external resources cleared the auction. Assuming full certification of these MWs, this would represent a mere 16% of the nominal value of the interconnections. Suffice it to say that the requirement of subsection (c) will not achieve the aim envisioned by the Act and will prove to unduly burden the ability of Massachusetts to reach the aggressive objectives of its RPS.

---

[10] Tie benefits are analogous to a reserve lane on a highway that can only be used for emergencies. According to NERC standards, tie benefits are available from adjacent control areas only if they entered into a coordination agreement among each other. Currently, NY ISO, New Brunswick System Operator and Hydro-Québec provide tie benefits to ISO-NE.

[11] For a detailed description on the determination of these values please refer to http://www.iso-ne.com/regulatory/ferc/filings/2008/jul/er08-41-____07-31-08_tie_benefits_filing.pdf

[12] The Phase II facility has been granted a Presidential Permit to operate up to 1,800 MW. Due to operational constraints within the NYISO and PJM footprints the steady-state energy rating of the line is limited to 1,400 MW but in transitional mode energy could flow up to 1,800 MW.

[13] *Op cit.* footnote 49 detailing the reason why individual tie benefits do not equate the total tie benefits.

Finally, the timing between the capacity and RPS markets creates un-hedgeable risk for both renewable energy resources and Massachusetts REC consumers. The FCM "year" is from June to May and the RPS is based on a Calendar year. This raises issues on the applicability of subsection (c). Since the calendars are unsynchronized, the RPS calendar encompasses two FCAs. Further, since external resources are treated as new capacity in every FCA – they have to offer in each auction – they have no assurance that the level of MWs that cleared in one FCA will do the same in the next one. This is another reason why this requirement is not feasible.

For the above mentioned reasons, DOER should conclude that capacity commitment should not be part of the deliverability requirements that an imported renewable energy resource should comply with. By eliminating this requirement, DOER would make RPS consumers benefit by (i) increasing competition, (ii) lowering voluntary payments, and (iii) increasing the probability of meeting the aggressive RPS goals.

C. Netting Energy Transactions Will Not Achieve the Intent of the Act

Subsection (e) of the Act envisions that the REC received by a certified external renewable energy resource "be reduced by any exports of energy from ISO-NE control area". This requirement does not assure Massachusetts consumers that the renewable energy provided by an external resource is consumed in and benefits the region. The current North American Electric Reliability Corporation ("NERC") tag requirement simply and efficiently accomplishes the purpose of assuring Massachusetts consumers that the energy related to a REC is entering and is consumed by them.

Indeed, subsection (c) outlines the requirements for an import to participate in the RPS market. Particularly, such a resource must "initiate the import transaction pursuant to a spot market sale into the ISO-NE administered market or under a bilateral sales contract with a purchaser of the renewable

energy located in the ISO-NE administered market by properly completing the NERC tag from the generator". This enables the tracking of the transaction and is needed to ensure the transaction actually enters and stays within ISO-NE.

It is unclear what the Act is trying to achieve with the netting of imports and exports as it may well affect both Massachusetts RECs and ISO-NE energy prices. If implemented, this extra constraint on external renewable energy providers transacting into multi-jurisdictions will diminish their ability to provide liquidity and compete in the market. This could negatively effect the price formation for the capacity and energy markets of ISO-NE. These multi-jurisdiction power marketers facilitate the substitution of internal expensive fossil-fuel generation by cleaner and less expensive outside generation. Fostering liquidity and competition will limit the region's dependency on fossil fuels, reduce green house gas emissions and give Massachusetts customers access to a cleaner source of energy enabling them to meet their RPS aspirations.

If the Act seeks to prevent wheel-through transactions from the RPS, this requirement is not needed. In fact, the NERC tag for such transactions clearly identifies the source and sink of the transactions. From the tag, it is clear the energy will not sink into ISO-NE but into another control area.

DOER should conclude that subsection (e) of the Act is unnecessary to ensure that renewable energy from outside ISO-NE is delivered and consumed by MA customers.

VI. Conclusion

For the reasons set forth above, Brookfield would appreciate DOER's interpretation of the intent behind the physically *relocated* language included in subsection (a) of the Act. Brookfield demonstrated above that subsection (c) and (e) are not only unwarranted but not needed and

impractical. For the reasons outlined above, Brookfield respectfully suggests that DOER concludes that subsection (c) and (e) are harmful to the Massachusetts RPS.

Daniel Whyte
Vice President, Government and Stakeholder Relations
Brookfield Renewable Power, Inc.
Marlborough, MA